



Divide and Rule? Why Ethical Proliferation is not so Wrong for Technology Ethics

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Abstract

Although the map of technology ethics is expanding, the growing subdomains within it may raise misgivings. In a recent and very interesting article, Sætra and Danaher have argued that the current dynamic of sub-specialization is harmful to the ethics of technology. In this commentary, we offer three reasons to diminish their concern about ethical proliferation. We argue first that the problem of demarcation is weakened if we attend to other sub-disciplines of technology ethics not mentioned by these authors. We claim secondly that the logic of sub-specializations is less problematic if one does adopt mixed models (combining internalist and externalist approaches) in applied ethics. We finally reject that clarity and distinction are necessary conditions for defining sub-fields within ethics of technology, defending the porosity and constructive nature of ethical disciplines.

Keywords Ethics · Technology Ethics · Ethical sub-specialization · Applied Ethics

1 Introduction

Is technology ethics becoming a new feudal Europe? Small ethical domains, analogous to ancient kingdoms, are becoming the fundamental locus of discussion of the problematics of technology ethics. This disunity and fragmentation have led Henrik S. Sætra and John Danaher (2022) to argue that ethics of technology must abandon this kind of new feudalism and return to addressing such issues at a more general level: from ethical theory and philosophy of technology. Their contribution bravely argues, in a fresh and compelling manner, that the current state of the ethical sub-disciplines is chaotic and theoretically inconsistent: the same issues are being discussed in different sub-disciplines without any fluid communication between them.

However, we believe that the questions “what *is* the state of technology ethics?” and “what *should be* the state of technology ethics?” are distinct. Sætra and Danaher

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derive from an accurate analysis of the current state of ethics of technology the conclusion that most of its sub-disciplines are theoretically and practically unjustified. Still, their conclusion regarding why some of these sub-disciplines should not exist is unsatisfactory. We will show it through the exposition of three fundamental problems. Firstly, we will point out that Sætra and Danaher, in their exposition of the sub-disciplines of technology ethics, miss, on the one hand, important sub-disciplines—particularly ones related to biotechnologies—and, on the other hand, fail to attend to the history of disciplinary discussions within applied ethics. Secondly, we will state that both authors seemingly start from a very limited conception of applied ethics and philosophy of technology, which prevents them from seeing the ethical specificity of each sub-discipline. Thirdly, we will argue that Sætra and Danaher have a restrictive conception of philosophical and scientific disciplines and that this greatly limits the strength of their analysis.

2 Broadening the Range of Sub-disciplines Mitigates the Demarcation Problem

The demarcation between sub-disciplines is one of the most vexing problems for Sætra and Danaher. The authors argue that many of the conceptual boundaries between sub-disciplines are blurred. To the extent that these frontiers are not well defined, this can lead to problems for practitioners and regulators.

We believe that the problem of demarcation arises because of the kind of sub-disciplines they include within the ethics of technology and, more especially, because of those they omit. They place the following sub-disciplines on the map of the ethics of technology: engineering ethics, computer ethics, AI ethics, robot ethics, machine ethics, information ethics, data ethics, digital ethics, and internet ethics. Very surprisingly, Sætra and Danaher do not mention other subdomains of applied ethics that study very specific technologies. Among the most significant omissions are NanoEthics, GenEthics, and NeuroEthics. The demarcation between these sub-disciplines and the others they mention, interestingly, is not so difficult. Nanotechnologies, genetic technologies or neurotechnologies have sufficiently distinct particularities to merit a separate study—and this has been the case for the last decades.

Therefore, there is a kind of selection bias in their proposal. The sample of sub-disciplines, indeed, is not fully representative. From its predominant focus on computationally based technologies (computers, internet, AI, robotics, digital innovations, etc.), it could also be implied that biotechnologies are not the object of study of technology ethics (but simply, shall we say, of bioethics). This is unfortunate. Many normative debates about biotechnologies are enriched when they are approached from technology ethics perspectives. For example, the ethical analysis of the future impacts of emerging genetic enhancement technologies benefits from adopting anticipatory methodologies developed in the ethics of technology (Brey, 2012a, 2012b, 2017; Lucivero et al., 2011; Mittelstadt et al., 2015; Swierstra et al., 2009). Similarly, some of the criticisms made from other debates, such as the use of highly speculative examples in NanoEthics (Nordmann, 2007; Nordmann and Rip, 2009), can also be extrapolated to controversies in GenEthics about emerging

genetic technologies (Schick, 2017, 2019)—so there is no need to constantly reinvent the wheel.¹

Moreover, neglecting these more consolidated sub-disciplines means losing a valuable historical point of view. For instance, the case of NeuroEthics is paradigmatic because it produced, in its early days, a huge literature on whether this technoscientific field constituted a significant novelty as an object of ethical study and as an autonomous discipline (Avram and Giordano, 2014; Buller, 2018; Cabrera, 2011; Illes, 2003; Knoppers, 2005; Levy, 2011; Moreno, 2003; Roskies, 2002). Attending to the lessons learned in these debates may help, precisely, to assess the need (or not) to demarcate in the latest sub-disciplines that are sprouting on technology ethics. Viewed in perspective, it would be difficult to claim that NeuroEthics has not made merits to become a space of independent ethical attention dealing with specific technoscientific advances.

All in all, we believe that the demarcation problem is less serious if we include within technology ethics subdomains with sharper boundaries. Needless to say, we do not claim there are not some demarcation problems in the cases that Sætra and Danaher choose. What we argue, rather, is that the problem of demarcation is not strictly linked to ethical proliferation per se, but instead when fields of study emerge with a conceptual neighborhood that is too blurred.

3 The Role of Concretion and Generality in Applied Ethics and Philosophy of Technology

Sætra and Danaher identify a fundamental problem of contemporary technology ethics: different sub-disciplines deal with the same issues without any dialogue between them (p. 17). Ethical issues related to privacy, data collection and management, or human obsolescence are the same or very similar in each of them. This leads the authors to infer that the existence of most of these sub-disciplines is unnecessary because all these problems could be dealt with at a general level (p. 19).

We consider that their conclusion can only follow from the problematic assumption of controversial premises. The fact that the sub-disciplines of technology ethics malfunction does not necessarily imply that their existence is ungrounded. Their malfunctioning may be due to a misunderstanding of their boundaries or a lack of relationship with the other sub-disciplines. Sætra and Danaher justify their ungroundedness on the basis of a very particular notion of applied ethics—“ethics, in applied form, often entails the systematization of what someone has discovered through philosophical analysis” (p. 4)—and of philosophy of technology—“much of what is labelled AI ethics has been expertly detailed by writers in philosophy and ethics of technology” (p. 18). We will argue below why this understanding of

¹ This example is interesting because it shows that there can be important contributions from an apparently old-fashioned sub-discipline, such as NanoEthics, to other sub-disciplines in better health. We are grateful to Sven Nyholm for this idea of sub-disciplines losing strength.

applied ethics and philosophy of technology is very limited, which calls into question the conclusions they draw.

Applied ethics need not consist solely of the application of rules and guidelines obtained at higher ethical levels. Tom Beauchamp (2003) has proposed three ways of understanding applied ethics. First, *externalism* argues that applied ethics consists of the application of a set of higher philosophical principles to concrete instances (Clouser, 1977; Gert, 1982). Second, *internalism* holds that the content of applied ethical norms comes from the concrete instances and spheres of which it is a part. Its content cannot be deduced from any higher level (Fullinwider, 1989; Rorty, 2006), because it derives its specificity from the practices and ways of life of a particular sphere of activity (MacIntyre, 1984). Thirdly, *mixed models* combine internalist and externalist approaches (Englehardt, 1996). Sætra and Danaher's argument shows the impossibility of a purely internalist conception of ethical sub-disciplines since they derive much of their content from higher levels. This does not mean, on the contrary, that they cannot be partially internalist. They do not take into consideration the possibility of adopting a mixed approach, that is, although the ethical sub-disciplines share problems, they also possess an important ethical specificity—involving both top-down and bottom-up ethical methodologies.

This is most clearly seen when we analyze Sætra and Danaher's notion of philosophy of technology. Contemporary philosophy of technology has taken an empirical turn (Achterhuis, 2001), which is opposed to what has been called the *transcendental philosophy of technology* (Schuurman, 1980). Technology should not be understood, in their view, as an abstract force that determines human realities; on the contrary, technologies are concrete artifacts that mediate our perceptions and incline us existentially to certain types of action (Ihde, 1990; Verbeek, 2005). The mediation exercised by each type of technology is different, so each of them deserves a particular analysis. And it is precisely from this particularity that technology ethics should be understood (Verbeek, 2011).

In sum, Sætra and Danaher reach their conclusions by having a dichotomous conception of applied ethics: either it is internalist or externalist. Their argumentation only leads to externalism to the extent that mixed approaches are ruled out. We claim, on the contrary, the need to take into consideration the ethical particularities of the types of technological artifacts, albeit well purged of problems that can be dealt with at a general level. The empirical philosophy of technology shows us the theoretical and applied need to take artifacts concretely, because general approaches cannot cover the whole ethical analysis.

4 The Porosity and Constructive Nature of Ethical Disciplines

A possible explanation of why Sætra and Danaher do not take into consideration the historically drawn divisions between other ethical sub-disciplines or alternative conceptions of applied ethics and philosophy of technology stems from their assumptions about the nature of philosophical disciplines. The authors criticize the porosity and lack of rigorousness of the boundaries of each of the sub-disciplines: “conceptual boundaries between the subfields are not well-defined nor respected. This

leads to general confusion and lack of consistency (...)” (p. 17). The proliferation of common topics is an indicator, in their view, that these sub-disciplines are not functioning properly. Underlying their argument is the premise that any discipline or sub-discipline must be clear and distinct. If a discipline or subdiscipline is not clear and distinct, it should not be called as such. Since the sub-disciplines of technology ethics are not, their existence is problematic.

We consider this assumption to be erroneous for two reasons. First, disciplines or sub-disciplines within broader disciplines are not always clear and distinct, but typically share numerous concepts and problems. The aspiration to purity is a scientific ideal that has never been fulfilled in practice. In fact, the contemporary philosophies of science are progressively abandoning this premise, since they consider that it greatly limits scientific activity (Ihde, 1993; Latour, 1999). What is important is not that each discipline has specifically clear and distinct contents, but that the relations that each discipline has with the others and with their higher and lower levels of generality are articulated and clarified.

Second, applied ethics often has a markedly constructivist character (Bayertz, 2016). Its debates do not simply refer to objects and situations that are always out there, but rather the social, cultural and technological context puts the ethicist in novel situations that demand a renewed ethical approach (Nyholm, 2023). The boundaries of the disciplines, due to the historical change mentioned above, are continually reconfigured. In the face of this evolutionary dynamic of the disciplines, it is difficult to defend that they should be clear and distinct.

In this sense, if ethical sub-disciplines need not be clear and distinct, then they can share common problems and contents—and even the same philosophical methods of analysis (Glock, 2011). Therefore, if the argument to deny the disciplinary importance of technology ethics is based on the fact that they have common problems and contents, it fails because clarity and distinction are not necessary conditions for defining a discipline.

5 Conclusion

Sætra and Danaher have initiated a necessary discussion about the increasing proliferation of neighboring sub-disciplines in technology ethics. Although we do not share their concern, we believe that this debate should continue in the future. Just as some subfields have recently been consolidated, others may do the same in the coming decades. The possible emergence of novel domain-specific technology ethics (say Virtual Reality Ethics) suggests that future proposals will point to as yet unknown positive and negative aspects of this ethical proliferation. In part, the creation of new sub-disciplines will depend on the increasing social prominence of other emerging and future technologies. The map of technology ethics thus includes uncharted waters and new subdomains to discover. This makes ethics of technology a fascinatingly lively and constantly evolving field of knowledge.

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Declarations

Competing interests The authors declare no competing interests.

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